

Discovering Market Pathways for National Lab Research

The U.S. Department of Energy (DOE) invests millions of dollars every year in U.S. national labs, yet without industry engagement and a business mindset at the labs, that investment has limited economic return.

Energy I-Corps pairs teams of researchers with industry mentors for an intensive two-month training where the researchers define technology value propositions, conduct customer discovery interviews, and develop viable market pathways for their technologies. Researchers return to the lab with a framework for industry engagement to guide future research and inform a culture of market awareness within the labs. In this way, Energy I-Corps is ensuring our investment in the national labs is maintaining and strengthening U.S. competitiveness long-term.



Energy I-Corps, formerly known as Lab-Corps, is managed by DOE's National Renewable Energy Laboratory (NREL). NREL leads curriculum development and execution, recruits program instructors and industry mentors, and assembles teams from the following national labs:

- Argonne National Laboratory
- Fermi National Accelerator Laboratory
- Idaho National Laboratory
- Lawrence Berkeley National Laboratory
- Lawrence Livermore National Laboratory
- Los Alamos National Laboratory
- National Renewable Energy Laboratory
- Oak Ridge National Laboratory
- Pacific Northwest National Laboratory
- Sandia National Laboratories

For each class of Energy I-Corps teams, these national labs recruit researchers working on energy technologies that have shown potential for commercial application. Together, these researchers receive comprehensive training and conduct at least 75 customer discovery interviews with industry. Once they have completed the training, participants have secured the necessary industry connections and insights to ready their energy technologies for the market, and gained an industry engagement framework to apply to future research and share with fellow researchers.

Energy I-Corps FAQs

What is Energy I-Corps?

Energy I-Corps is a two-month training where national lab researchers learn about industry needs and evaluate potential market applications for their technologies.

How many teams have gone through the program?

63 teams from 10 national labs have participated in the program's first five training sessions.

What are the benefits?

Participants benefit from workshops taught by industry experts, as well as the more than 75 customer discovery interviews they conduct over the duration of the program. The training equips national lab researchers with tools to understand the real-world relevance of their technologies, and viable pathways to market. These tools help inform future research at the national labs.

Who can participate?

DOE national lab researchers working on eligible technologies can apply. Eligibility requirements may vary by class depending on participating DOE offices, but past areas of interest include a range of renewable and energy efficient technologies, in addition to nuclear, fossil, and environmental management.

Energy I-Corps is also looking for program instructors and industry mentors.

How can I learn more?

Email energycorps@NREL.gov to learn more about Energy I-Corps and how to get involved. If you are interested in becoming an instructor or mentor, contact Kristin Clary at kristin.clary@nrel.gov.

Customized Curriculum

The Energy I-Corps curriculum was initially developed in 2015 in partnership with the National Science Foundation's (NSF's) Innovation Corps (I-Corps) program. With the support of the national labs and external industry advisors, NREL and DOE's Office of Energy Efficiency & Renewable Energy (EERE) adapted NSF's nationally-recognized I-Corps training.

Adjustments made to the I-Corps curriculum address the specific challenges scientists working within the national lab environment face getting their innovations ready for market, such as navigating the complexities of IP bundling. As more research teams complete the training, NREL and EERE continue improving and enhancing the Energy I-Corps curriculum to best meet participant and industry needs.



Teams from the fourth class analyze market pathways for their early stage technologies. This is just one of many hands-on activities DOE Lab-Corps participants complete with support from industry mentors and instructors from the clean energy sector. *Photo credit NREL.*

Energy I-Corps Successes

- Five teams have launched new businesses based on their Energy I-Corps technology, and more are being developed.
- Because of Energy I-Corps, technologies have reached a point of commercial viability that has attracted nearly \$10 million in follow-on funding.
- Collectively, teams have worked with more than 70 industry mentors to discover the commercial impact of their technologies and conducted more than 4,500 customer discovery interviews with industry.

Every EERE technology office has supported teams through the training. Participation has also expanded to include lab teams supported by DOE's Fossil Energy, Nuclear Energy, and Environmental Management offices.

About Technology-to-Market

EERE's Technology-to-Market program strengthens the U.S. innovation ecosystem by eliminating common barriers that prevent market exploration of new energy technologies. Tech-to-Market does not directly fund individual technologies. Instead, the program is re-imagining the pathway to market for competitive clean energy technologies by addressing market readiness and resource access. The Energy I-Corps program is one way Tech-to-Market addresses market readiness. ■